ABSTRACT OF THE DISCLOSURE

There is provided an encoding apparatus and method in a CDMA communication system. To encode input information of a k-bit sequence and

5 generate a codeword with length $N > (2^k-1)$, an encoder encodes the input information using an (r, k) simplex code and generates a sequence of code symbols of length r ($r=2^k-1$), a repeater repeats the sequence of code symbols t times ($t = \left\lfloor \dfrac{N}{r} \right\rfloor + 1$), and a puncturer performs puncturing A times (A=rt-N) on the t repeated code symbol sequences so that the resulting codes have length N. The

10 punctured symbols are distributed uniformly across the repeated code symbol sequences or confined to the tth repeated code symbol sequence.